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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/606,931	06/26/2003	Graham Mensa-Wilmot	05516.084002	3848

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EXAMINER

PAYER, HWEI SIU CHOU

ART UNIT

PAPER NUMBER

3724

DATE MAILED: 10/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/606,931

Applicant(s)

MENSA-WILMOT ET AL.

Examiner

Hwei-Siu C. Payer

Art Unit

3724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4 and 12-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 12-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 August 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## Detailed Action

The amendment filed on 8-4-2005 has been entered.

### Claims Rejection - 35 U.S.C. 112, second paragraph

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-4 and 12-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

(1) In claim 1, lines 2-11 are vague because it is not understood what method step of forming a drill bit body is defined by the claim language of "the mold having therein at least one displacement adapted to from a mounting pad for a cutting element, the displacement comprising a substantially cylindrical body having a diameter selected to substantially conform to a radius of the cutting element and a projection adapted to from a relief groove under a position of a diamond table in the cutting element when the cutting element is mounted on the pad, a width of the relief groove selected so that the relief groove extends back from an outer surface of the bit body at least about 40 percent of that portion of a thickness of the diamond table which does not extend past the outer surface".

(2) Claims 2-4 are vague since it is not clear exactly what method steps of forming a drill bit body are being claimed therein. Claims 2-4 are not method claims. There are no method steps of forming a drill bit body cited therein.

(3) In claim 12, lines 2-9 are vague because it is not understood what method step of forming a drill bit body is defined by the claim language of "the mold having therein at least one displacement adapted to from a mounting pad for a cutting element, the displacement being made from a single component comprising a substantially cylindrical body having a diameter selected to substantially conform to a radius of the cutting element and a projection adapted to from a relief groove under a position of a diamond table in the cutting element when the cutting element is mounted on the pad".

(4) Claims 13 and 14 are vague since it is not clear exactly what method steps of forming a drill bit body are being claimed therein. Claims 13 and 14 are not method claims. There are no method steps of forming a drill bit body cited therein.

#### **Claims Rejection - 35 U.S.C. 102(b)**

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Newton, Jr. et al. (U.S. Patent No. 4,844,185).

Claim 1 as claimed recites only one method step, i.e., infiltrating powdered tungsten carbide with a binder alloy in a mold. The structure of the mold does not define any method step for forming a drill bit body and, therefore, does not serve to distinguish.

Newton, Jr. et al. disclose a method for forming a drill bit body comprising the step of infiltrating powdered tungsten carbide with a binder alloy in a mold (see column 5, lines 44-50) as claimed.

The structural limitation "the mold having therein at least one displacement adapted to form a mounting pad for a cutting element, the displacement comprising a substantially cylindrical body having a diameter selected to substantially conform to a radius of the cutting element and a projection adapted to form a relief groove under a position of a diamond table in the cutting element when the cutting element is mounted on the pad, a width of the relief groove selected so that the relief groove extends back from an outer surface of the bit body at least about 40 percent of that portion of a thickness of the diamond table which does not extend past the outer surface" as cited in claim 1 has been given very little patentable weight, since it has been held that to be entitled to weight in method claims, the recited structure limitations therein must affect the method in a manipulative sense, and not to amount to the mere claiming of a use of a particular structure. Ex parte Pfeiffer, 1962 C.D. 408 (1961).

3. Claim 12 is rejected under 35 U.S.C. 102(b) as being anticipated by Newton, Jr. et al. (U.S. Patent No. 4,844,185).

Claim 12 as claimed recites only one method step, i.e., infiltrating powdered tungsten carbide with a binder alloy in a mold. The structure of the mold does not define any method step for forming a drill bit body and, therefore, does not serve to distinguish.

Newton, Jr. et al. disclose a method for forming a drill bit body comprising the step of infiltrating powdered tungsten carbide with a binder alloy in a mold (see column 5, lines 44-50) as claimed. The structural limitation "the mold having therein at least one displacement adapted to from a mounting pad for a cutting element, the displacement being made from a single component comprising a substantially cylindrical body having a diameter selected to substantially conform to a radius of the cutting element and a projection adapted to from a relief groove under a position of a diamond table in the cutting element when the cutting element is mounted on the pad" as cited in claim 12 has been given very little patentable weight, since it has been held that to be entitled to weight in method claims, the recited structure limitations therein must affect the method in a manipulative sense, and not to amount to the mere claiming of a use of a particular structure. Ex parte Pfeiffer, 1962 C.D. 408 (1961).

## Remarks

Applicant argues, at page 9 of the amendment, Newton fails to disclose using displacements in forming a drill bit body. On the contrary, claims 1 and 12 merely call for a one step method for forming a drill bit body. The method comprises a single step of "infiltrating powdered tungsten carbide with a binder alloy in a mold", and Newton, Jr. et al. clearly show such step (see column 5, lines 44-50) as claimed. The structure of the mold as cited in claims 1 and 12 does not define any method step and, therefore, does not serve to distinguish.

## Action Made Final

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

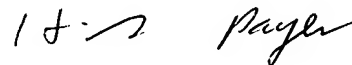
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

### Point of Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hwei-Siu C. Payer whose telephone number is 571-272-4511. The examiner can normally be reached on Monday through Friday, 7:00 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Allan N. Shoap can be reached on 571-272-4514. The fax phone numbers for the organization where this application or proceeding is assigned are 571-273-8300 for official communications and 571-273-4511 for proposed amendments.

H Payer  
October 20, 2005



~~Hwei-Siu Payer~~  
~~Primary Examiner~~